

## ABSTRACT

A glucose monitoring system comprising a readhead positioned a predetermined distance from a sample aperture. The readhead comprises first and second LEDs adapted to emit intersecting paths of light. A beam splitter is positioned at the intersection of the light paths. The beam splitter comprises a band pass filter for controlling the center wavelength of a resulting coaxial emitted light for illuminating a sample on the sample aperture. The readhead further comprises a detector which comprises a detector aperture and a molded lens over the detector aperture. A light-scattering section upstream of the lens comprises a plurality of steps having angles greater than 90 degrees to reduce internal stray light.

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